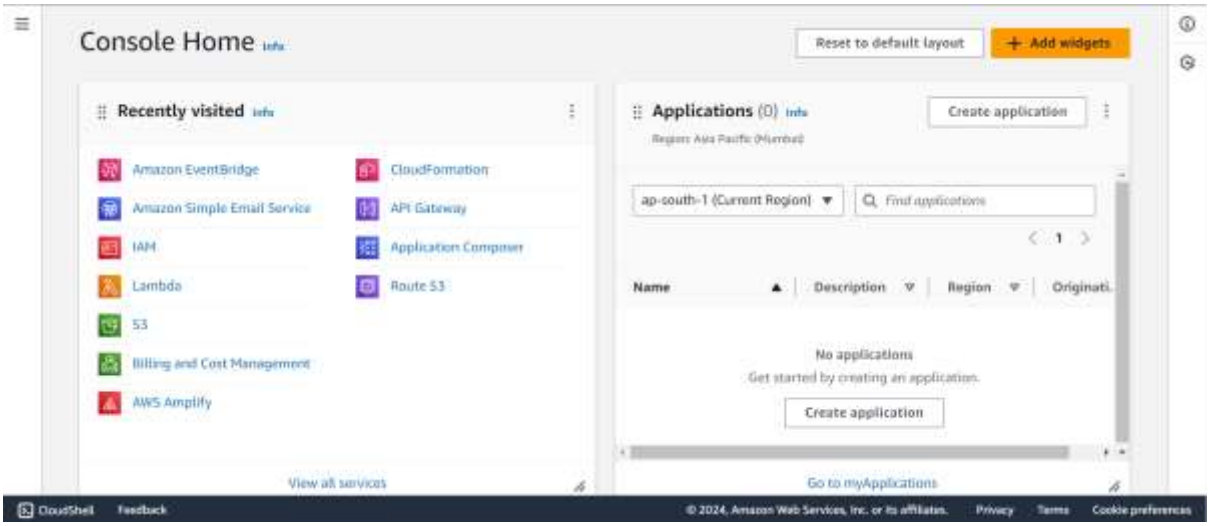
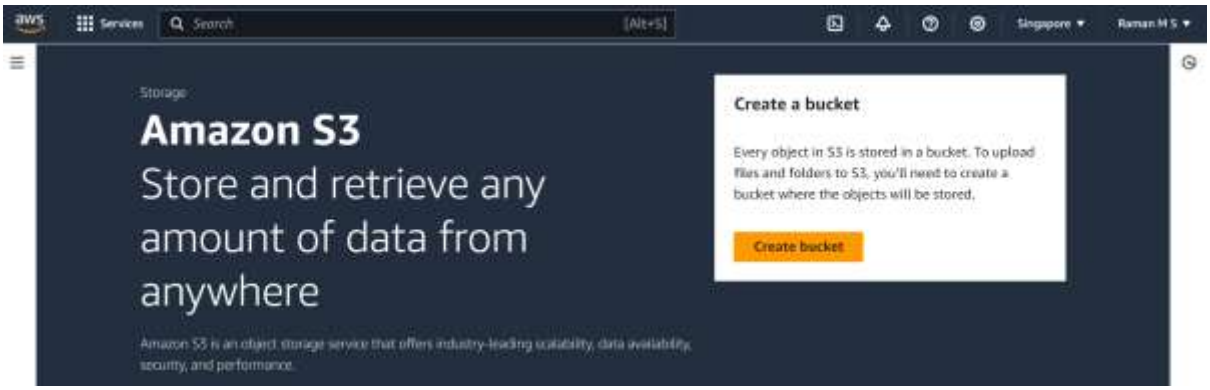
Build a Serverless Email Marketing Application Using AWS

The Services used in this projects *(S3,SES,AWS LambdaFunction,AWS Event Bridge)*



Step 1: Create an S3 Bucket

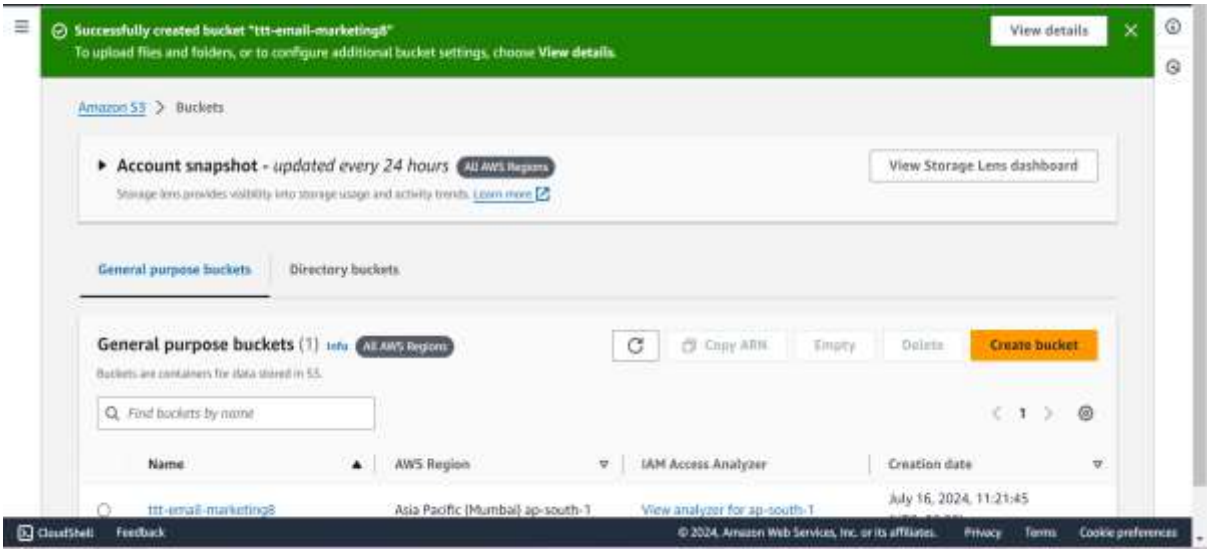
- Navigate to S3 in the AWS Console.
- Click the “Create bucket” button.



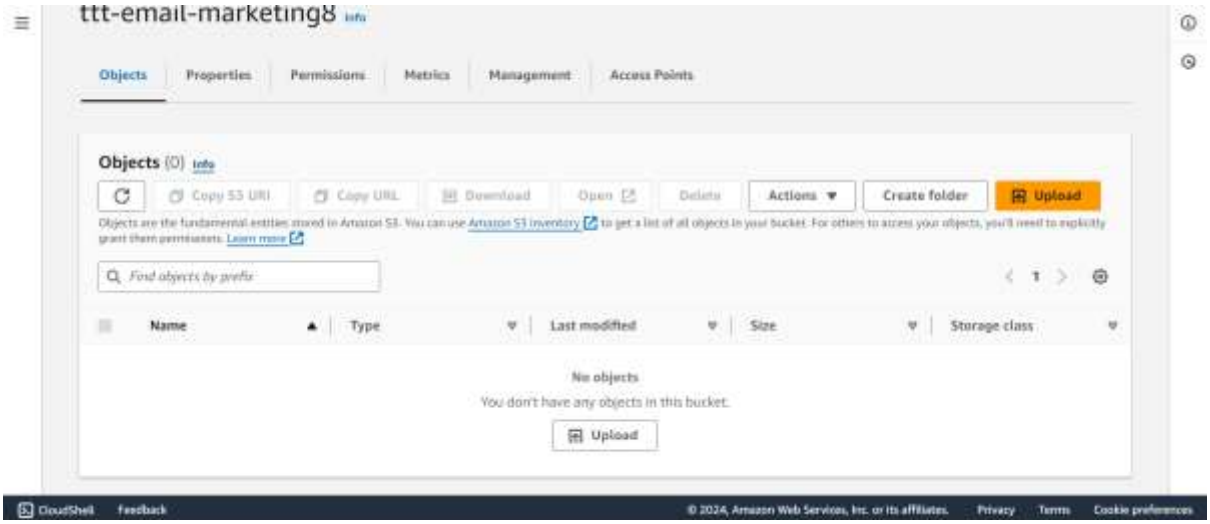
- Add a globally unique name for your S3 bucket.

- Untick "**Block *all* public access" -(** it enables public access to your bucket's contents**)**
- Then Click on Create Bucket

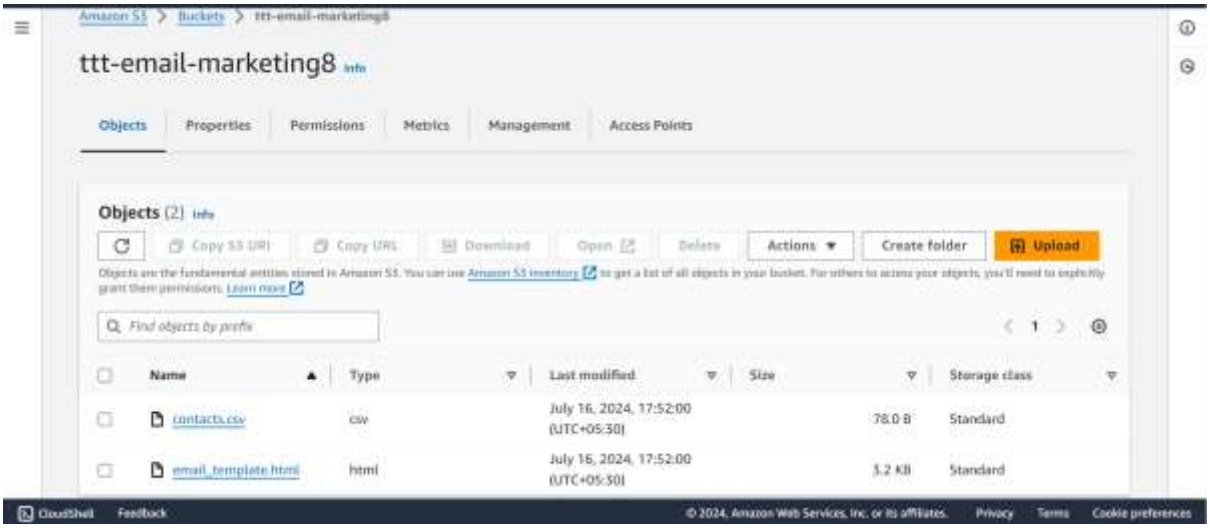
- You can view our newly created bucket in Amazon S3 under the "Buckets" section



- Click on the newly created bucket.
- Click the “Upload” button to add your website files.



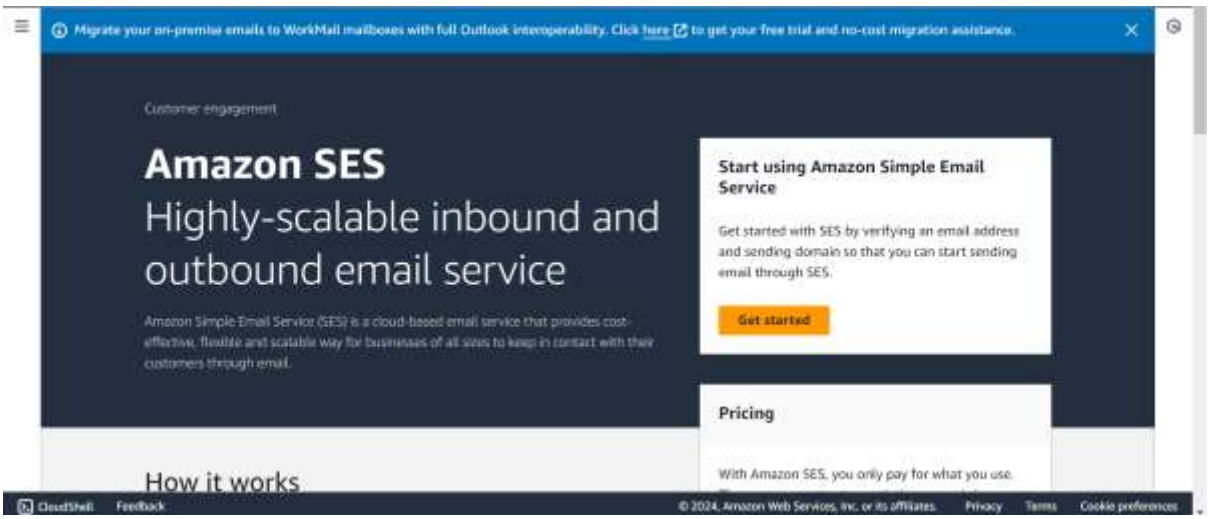
- You can upload all the files and folders of the website here.



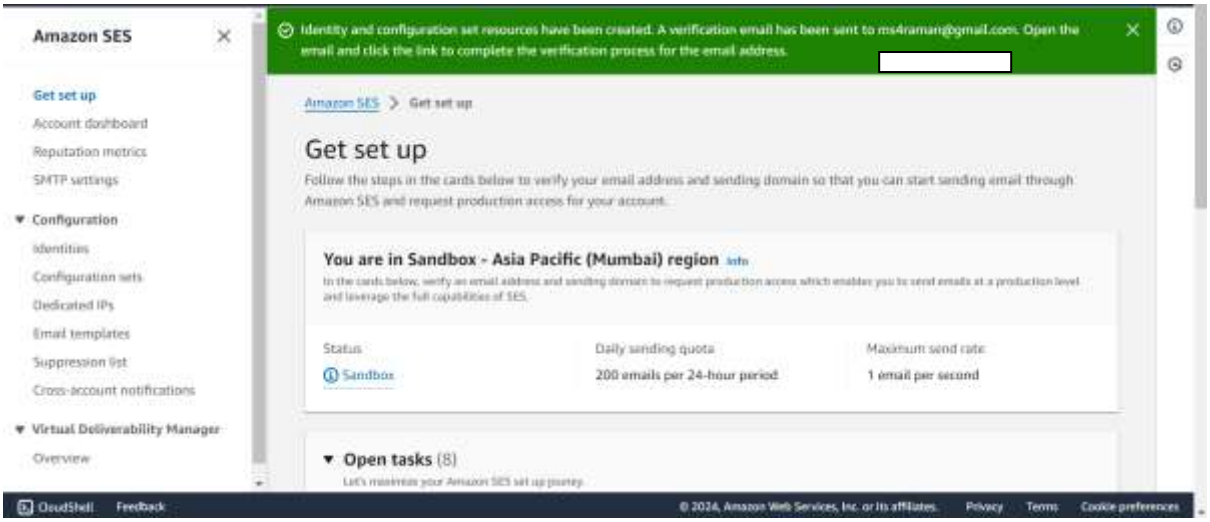
- And then click on Upload

Step 2: Next create a Simple Email Service for sending Email

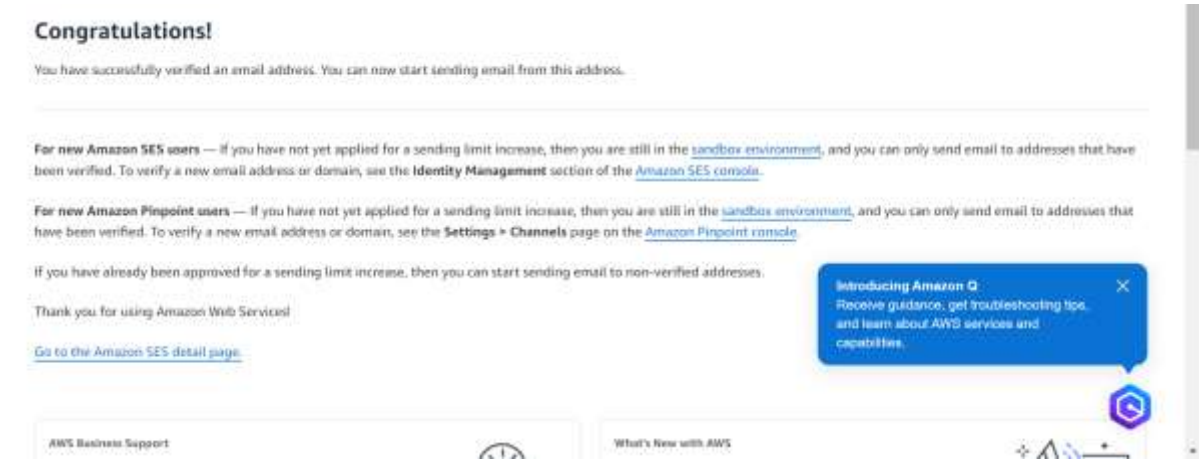
- Navigate to SES in the AWS Console.
- Click the “Get Started” button



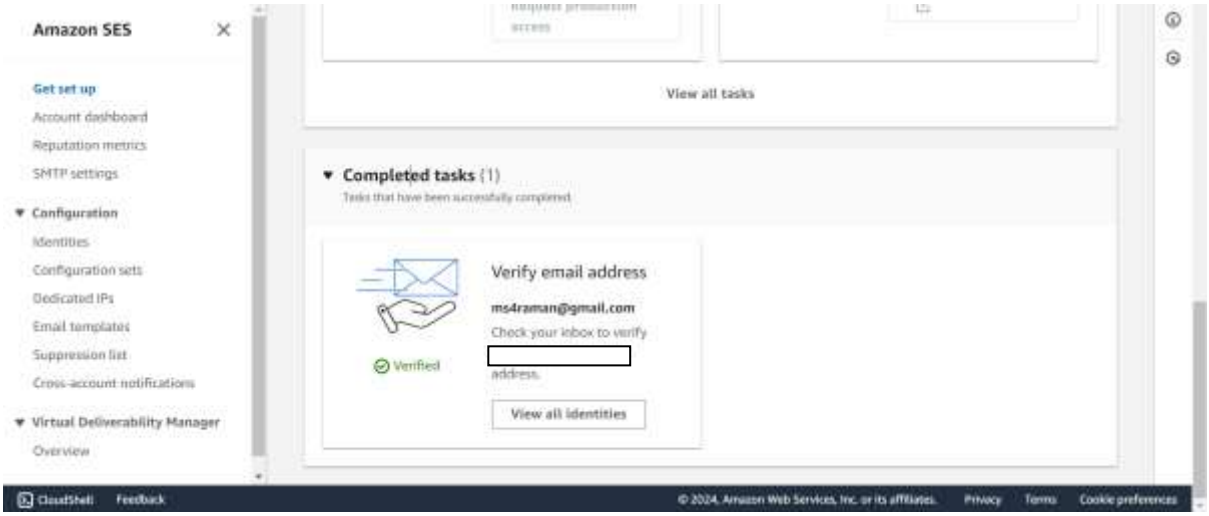
- And now we need to provide the email ID and domain name, and then create it



- Then you will get a Email for verification and you need to click that link then it will redirect to an message



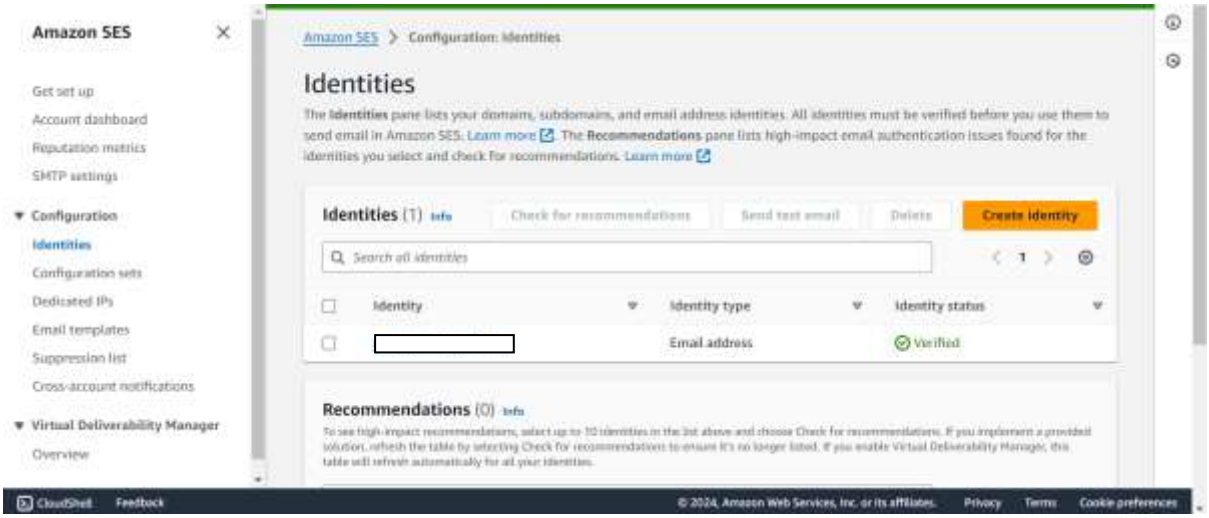
- Now in completed task you can see the whether it is verified or not.


Amazon SES
Get set up
Account dashboard
Reputation metrics
SMTP settings
Configuration
Identities
Configuration sets
Dedicated IPs
Email templates
Suppression list
Cross-account notifications
Virtual Deliverability Manager
Overview
View all tasks
Completed tasks (1)
Tasks that have been successfully completed.
Verify email address
ms4raman@gmail.com
Check your inbox to verify
address.
Verified
View all identities
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

- Now that we have created the email ID, we need to send an email. To do this, we provided a contact. CSV file in S3 bucket that contains the email IDs of the recipients.

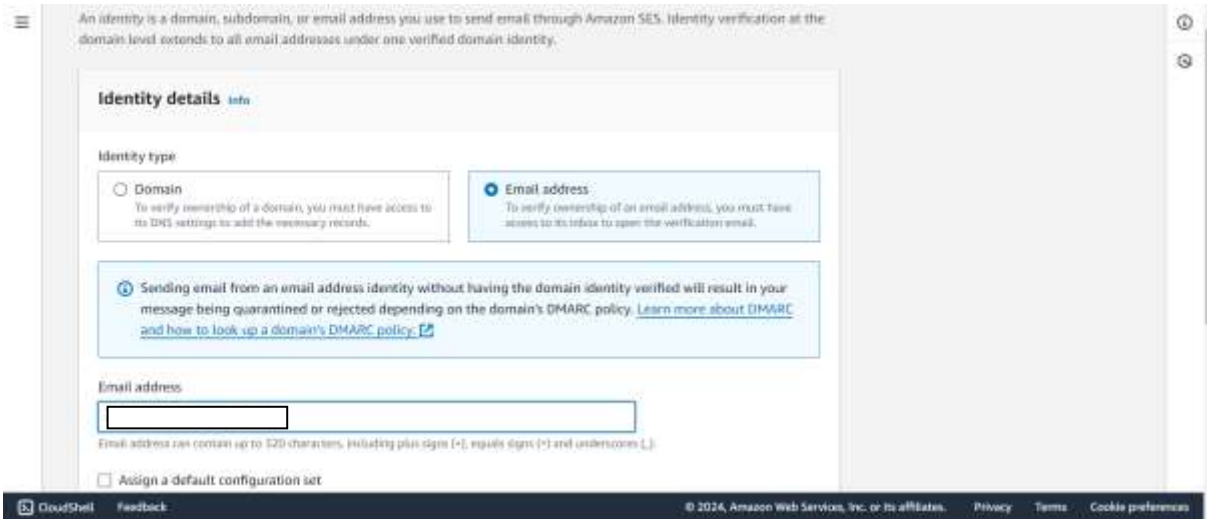
- So we are taking those email ID and create

- For that Go to create identity



- You can have any number of identities/recipients. But in this instance, I only added one.

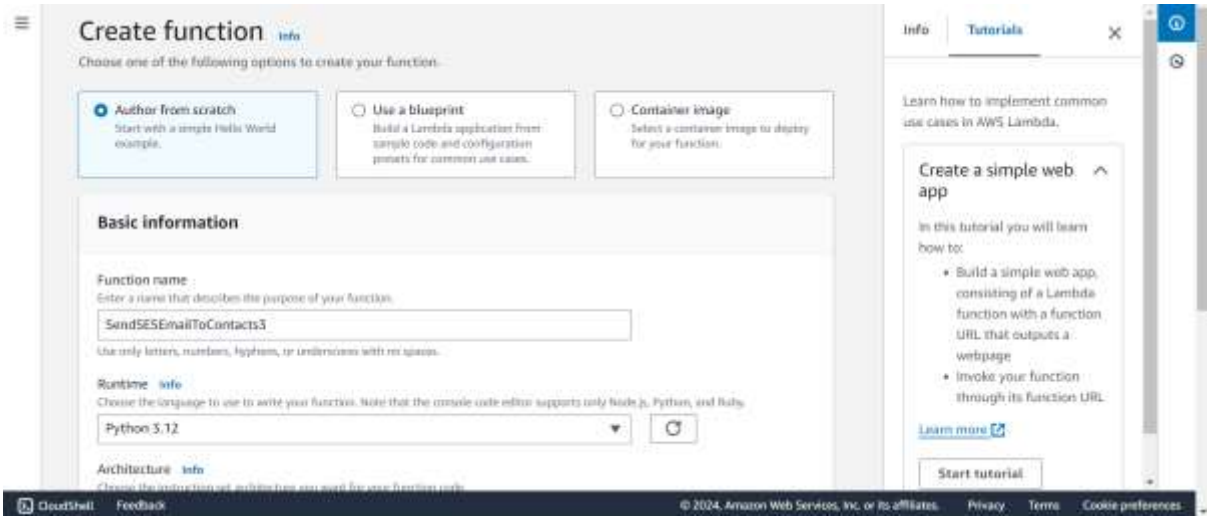
- And last click create identity.

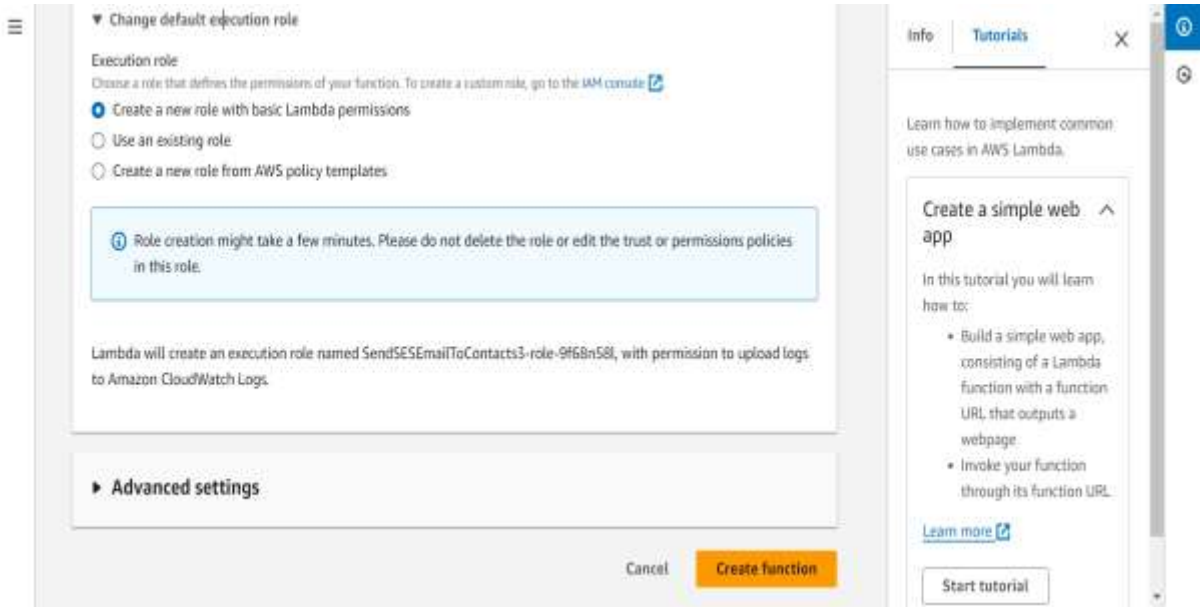


Step 3: Create Lambda Fuctions

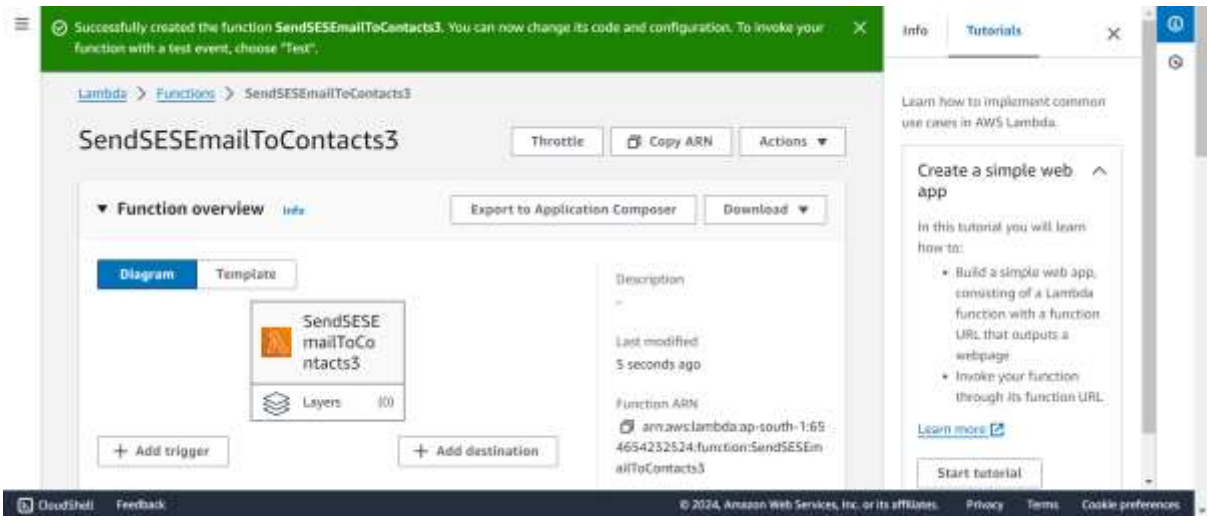
- Navigate to AWS Lambda in the AWS Console.
- Click the “Create a Fuction” button

- Now we need to provide a name for the Lambda function, specify the language it should run.
- And also we can choose role also, then click on Create function.



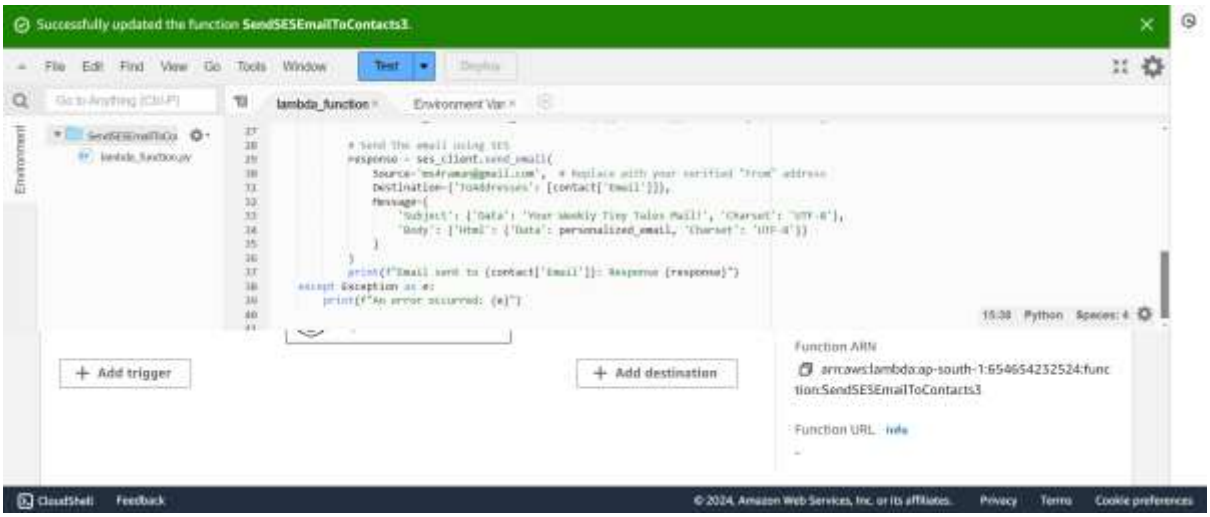


- Now we can see it get created



- So after creating the Lambda fuction we can change the code and configuration for our own.

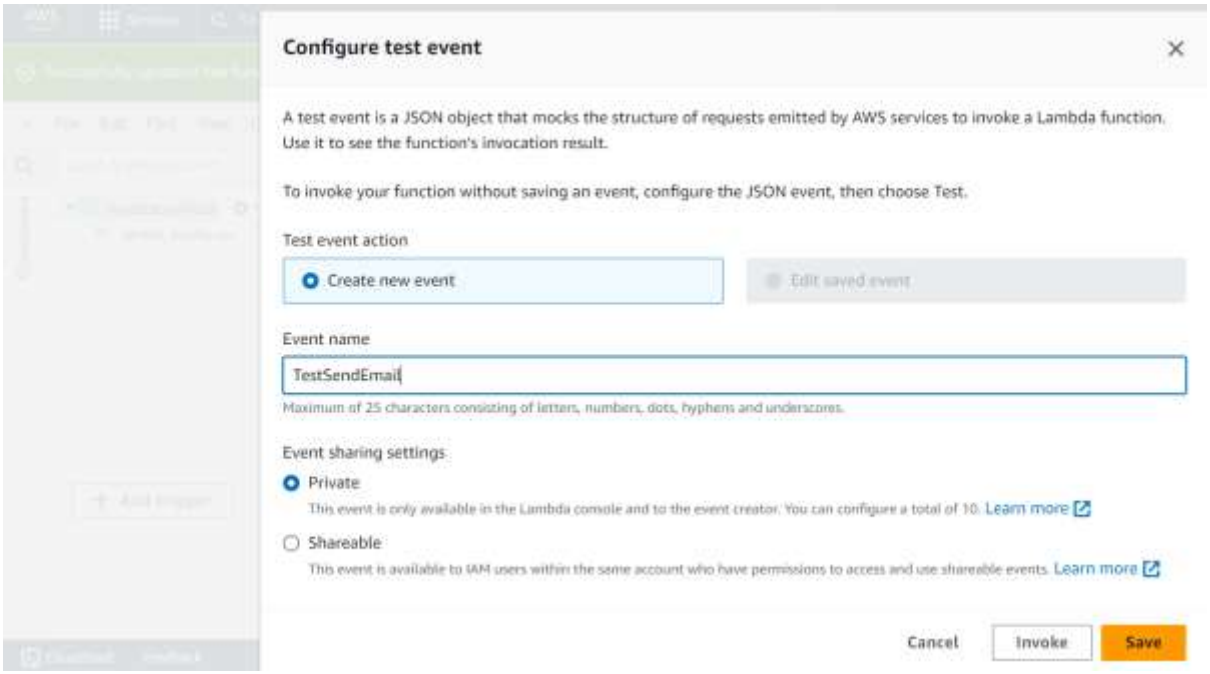
- In this I have give one python code for the lambda Fuction

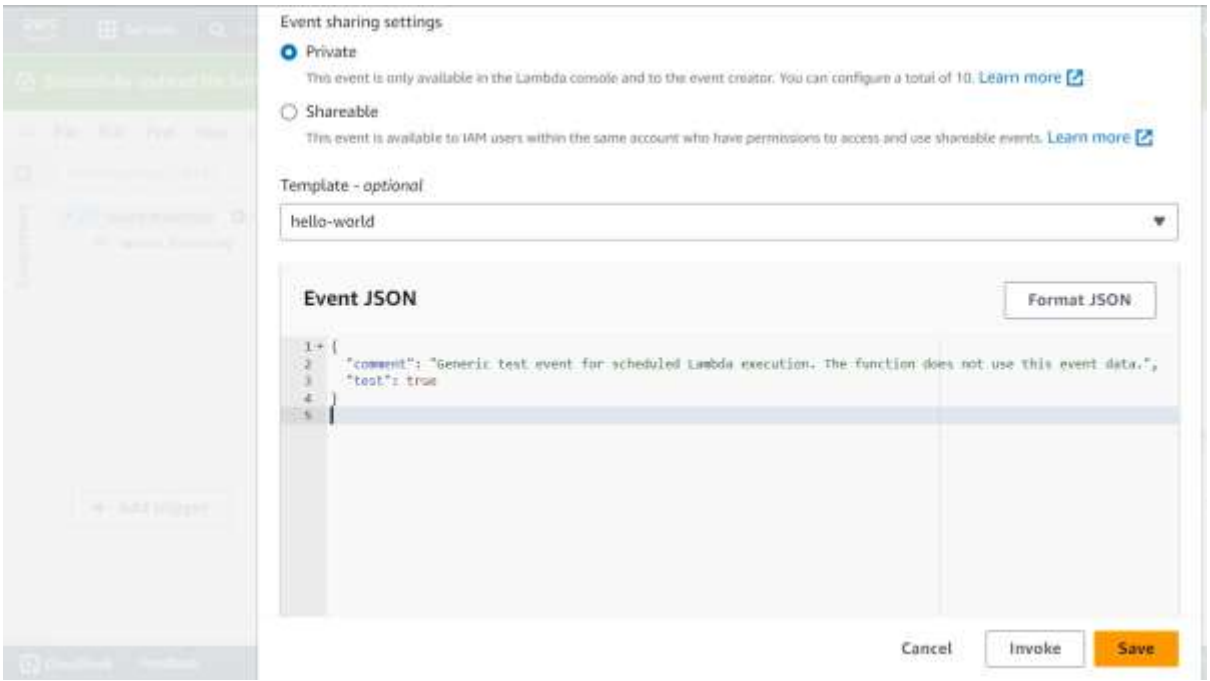


- After this we are checking whether this is working or not, for that we click the test

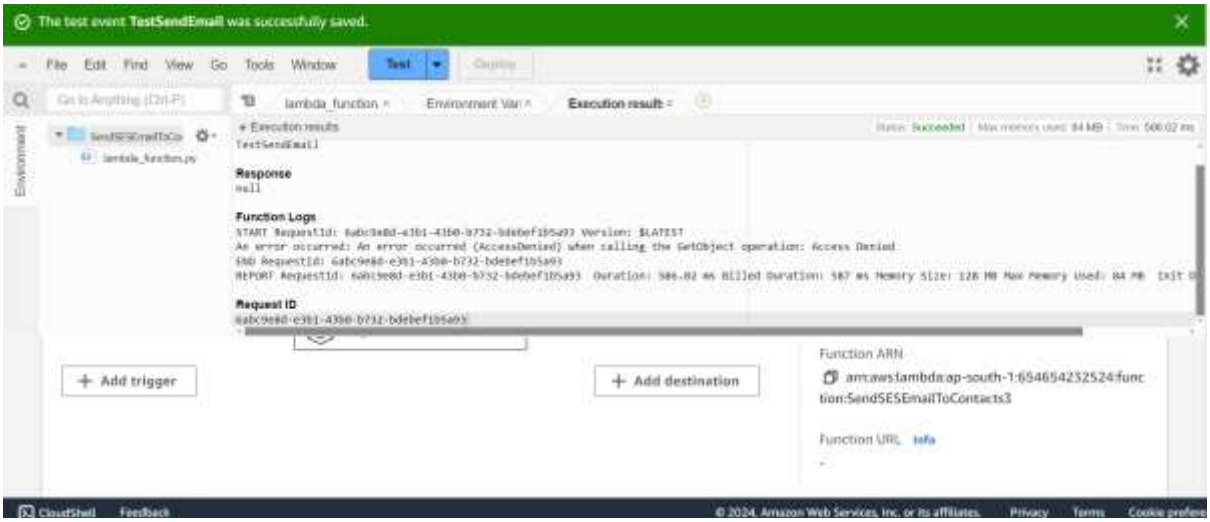
- Then need to give a Event name as well as one Event Json.

- And then click on Save





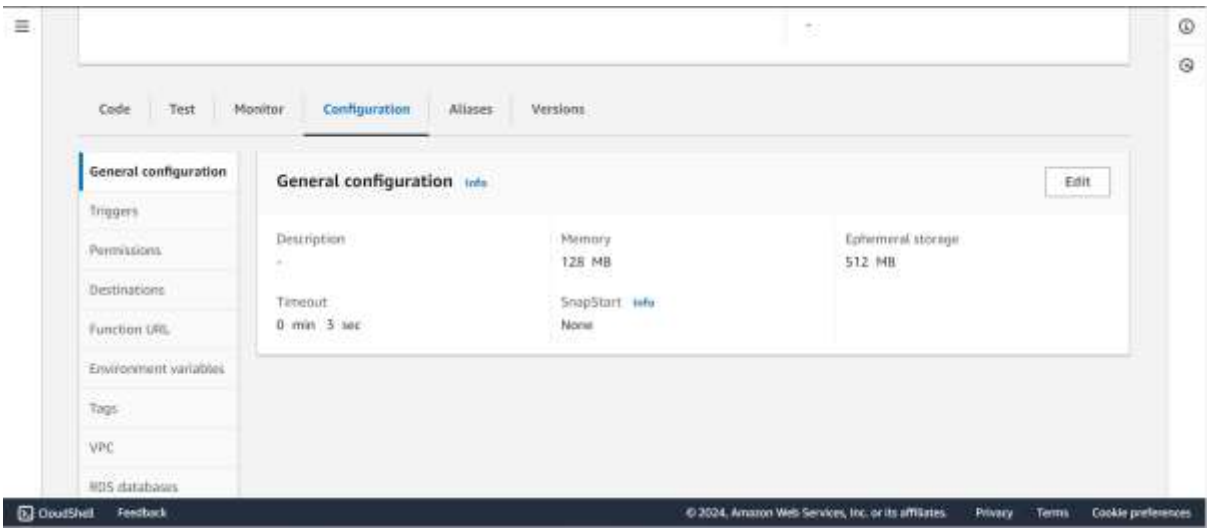
- After save, you need to click Deploy for whethere our this Test event working or not.



- But after Deploy we can see that it will show “Access Denied”.

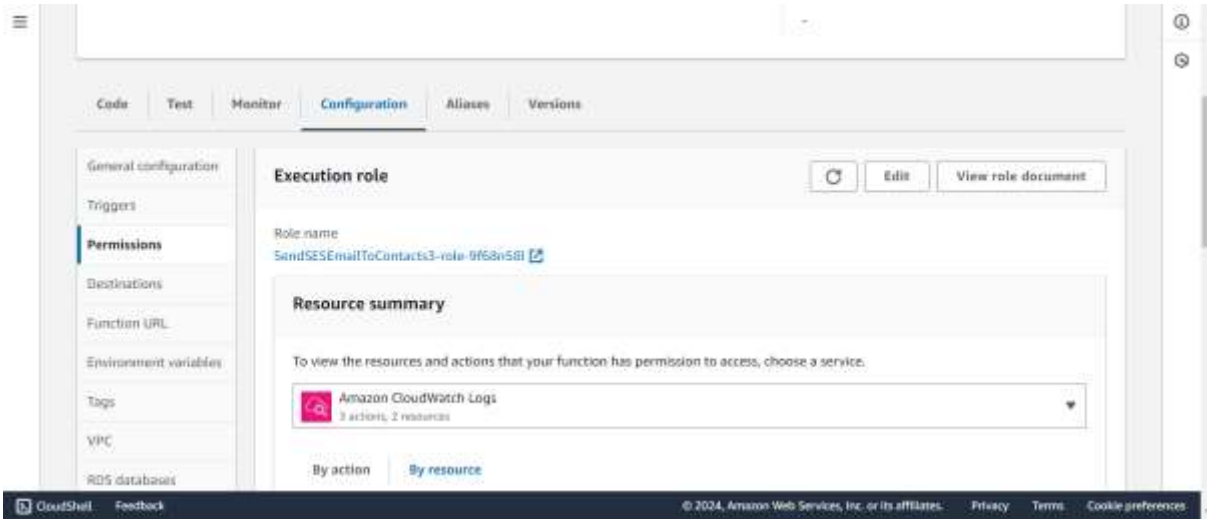
- Because the Lambda Fucntion is not having permission to do this, so because of that we need to make policies for that.

- Now click on Function, and go to Configuration

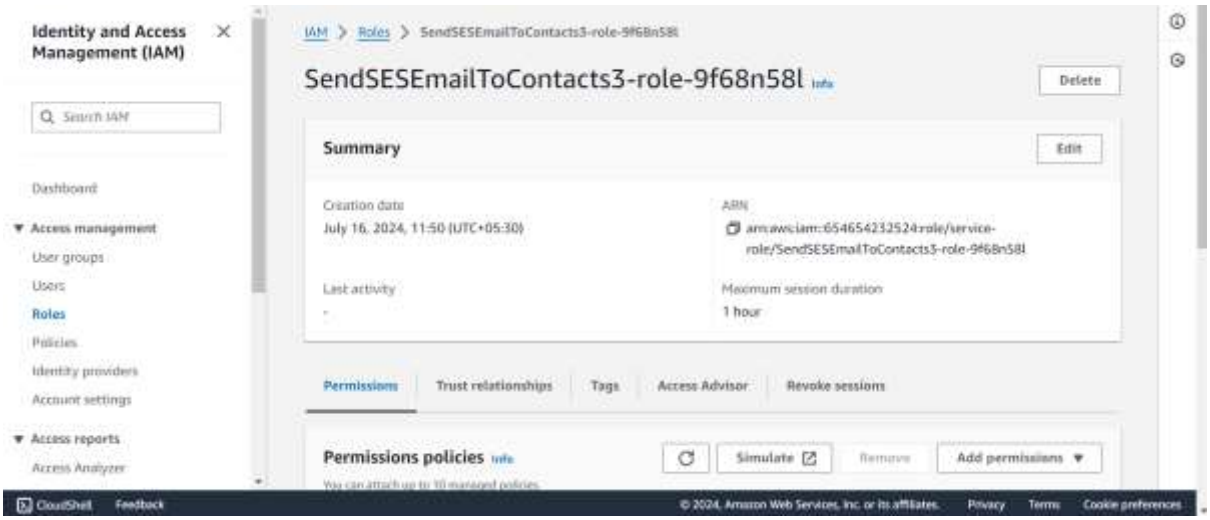


- Then Go to the Permissions

- Click on that Role name or that SendSESEmailTOContact3-role

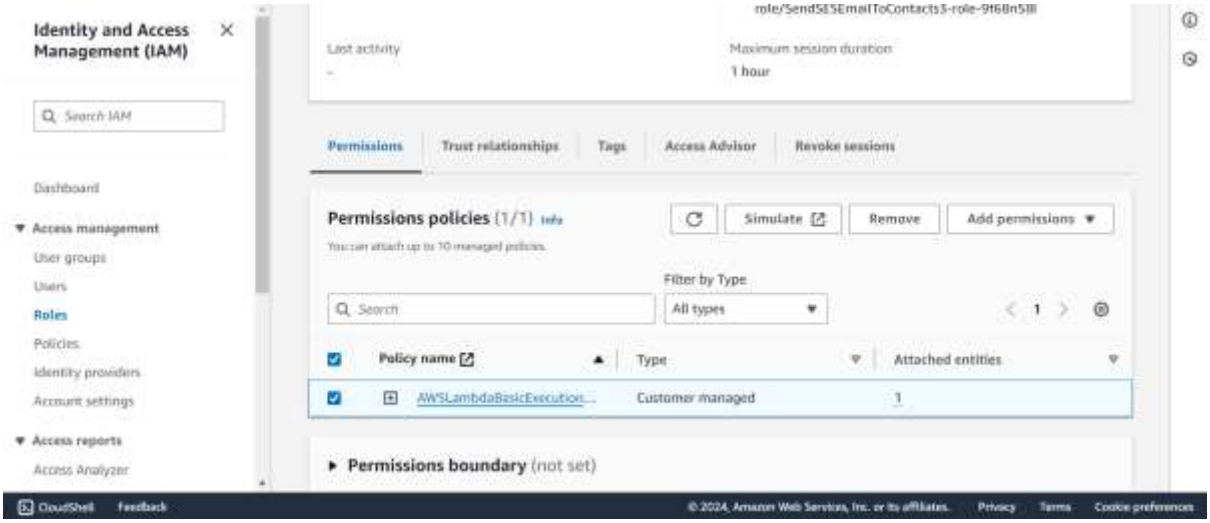


- Now Go to Roles



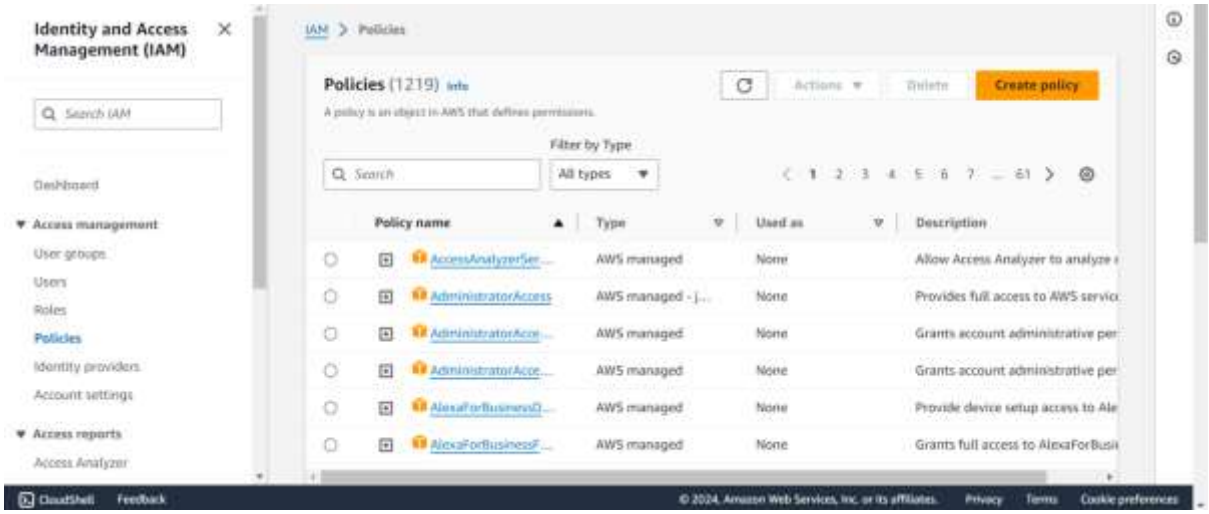
- Now, in roles, we need to check which role is assigned to this SES. It only has CloudWatch support.

- Because of that, we need to create a new policy.



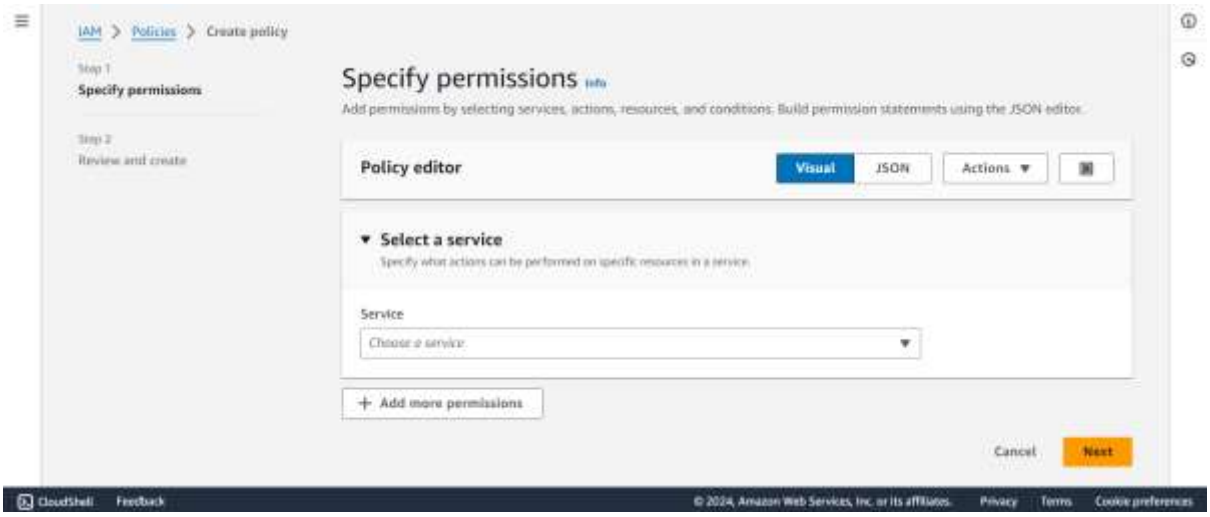
- Now Go to policies and make a new policy for this

- Click on Create Policy

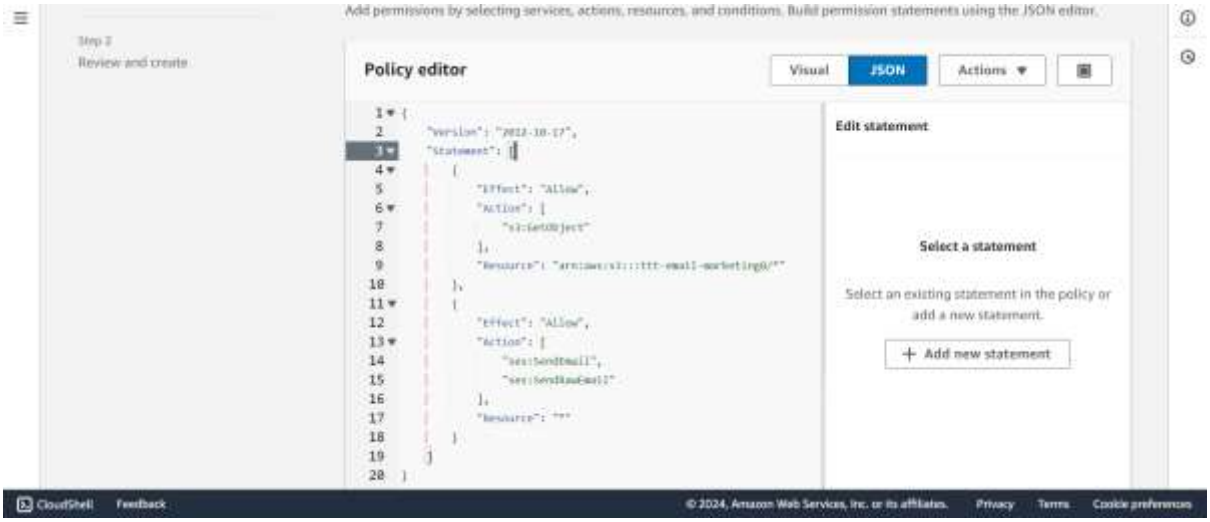


- After that you need to specify which Policy Editor need to choose

- Click on Json

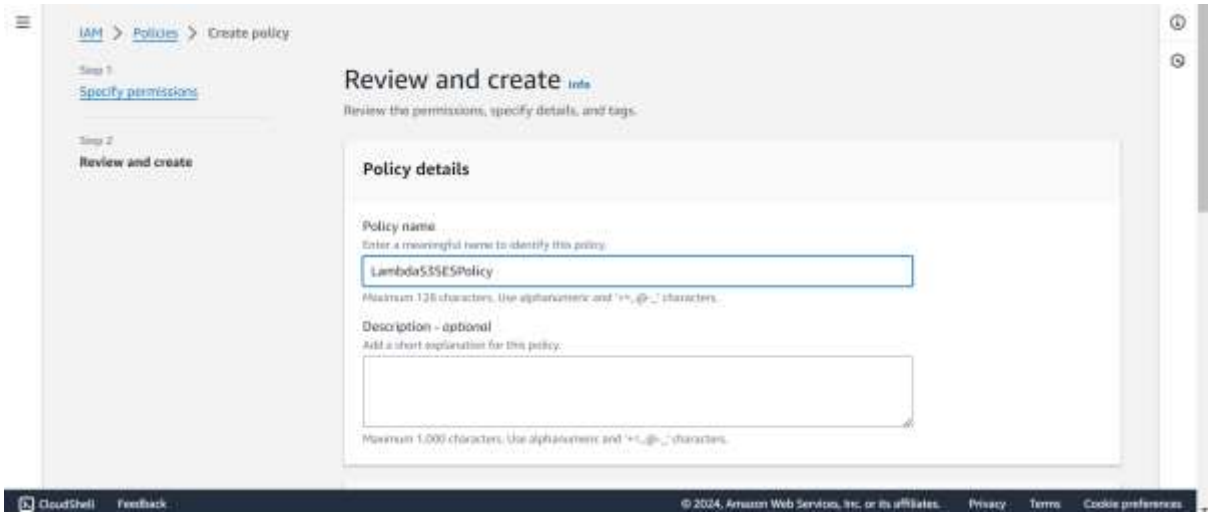


- And now need to make a code and put that into the JSON

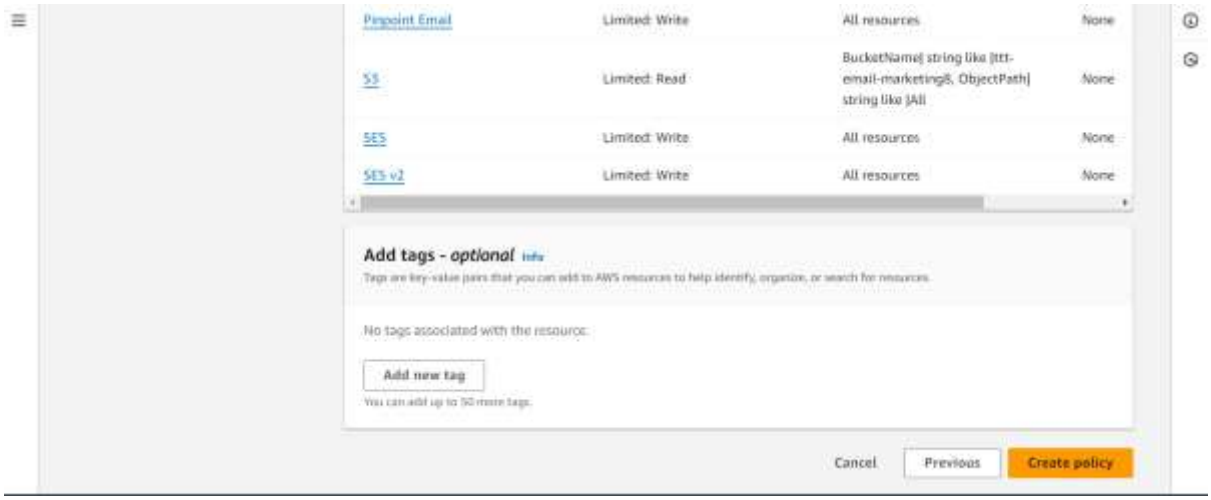


- Click on Next

- In Review and Create we need to give a name for that (LambdaS3SESPolicy)

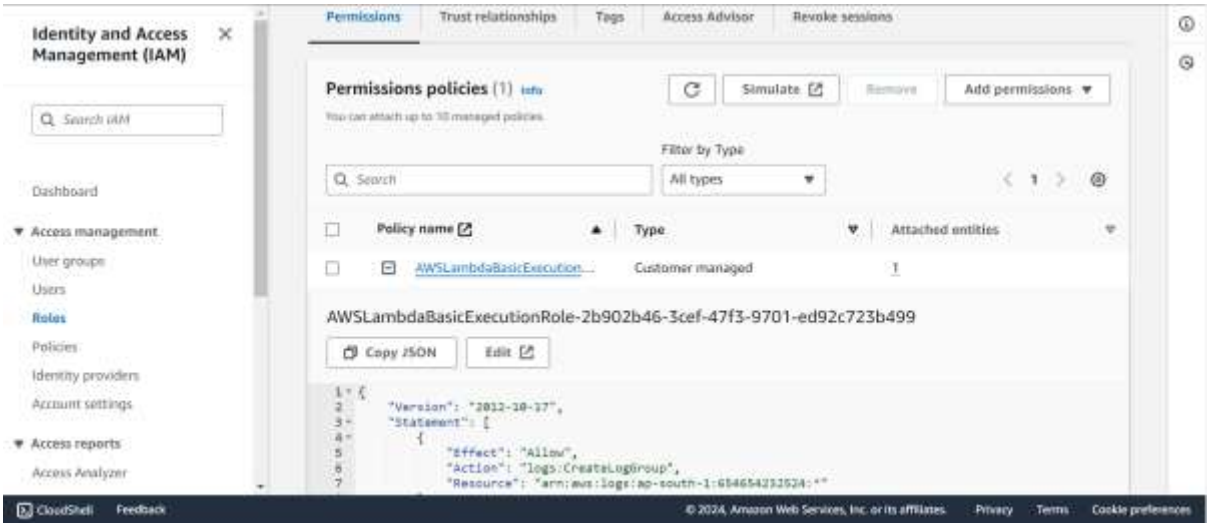


- And now click on Create Policy

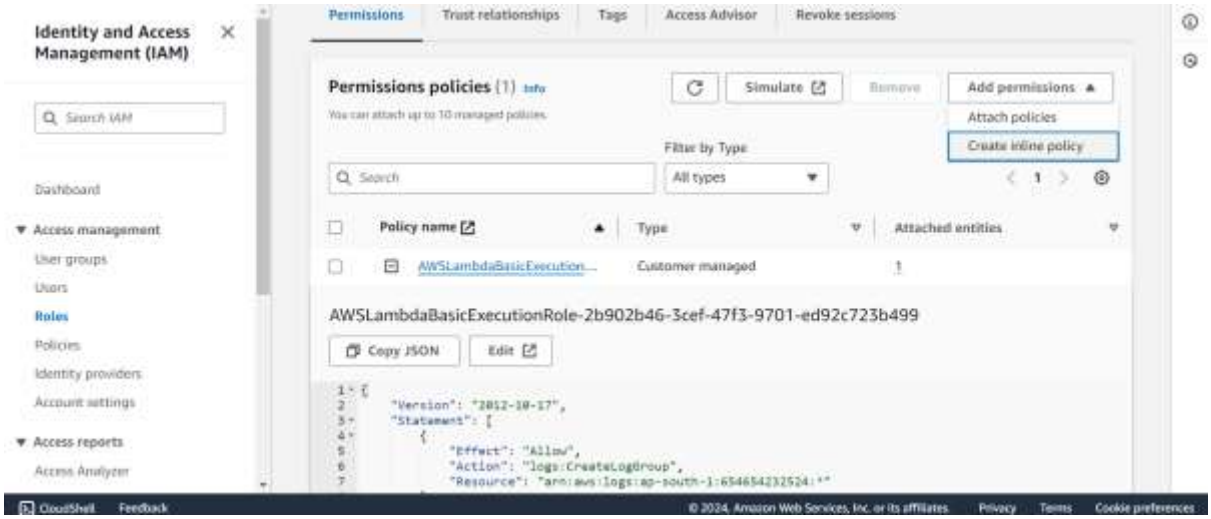


- Now need to add this permission into Policy

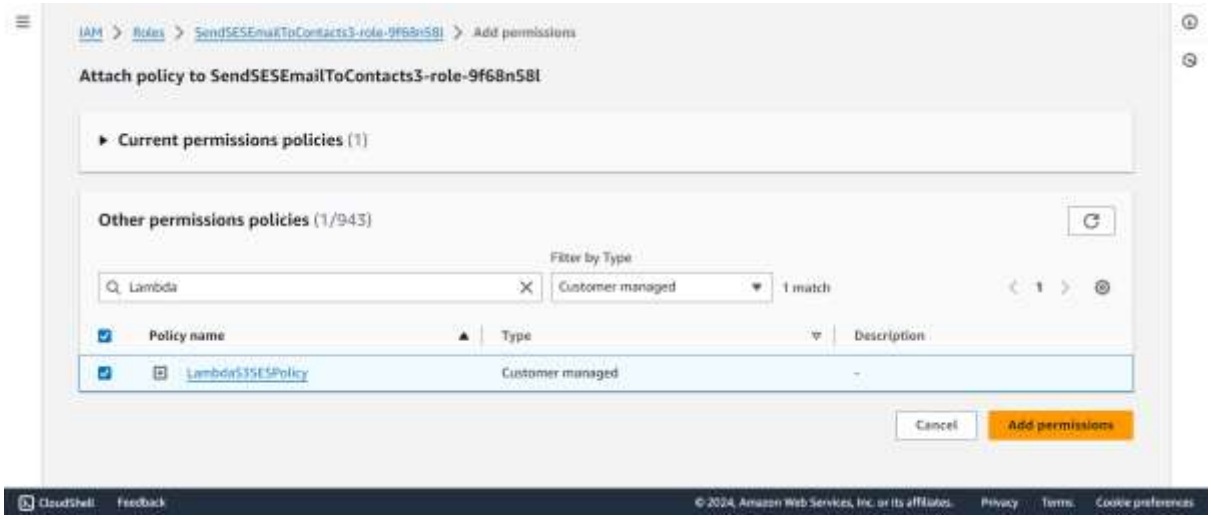
- For that Click on Add Permission



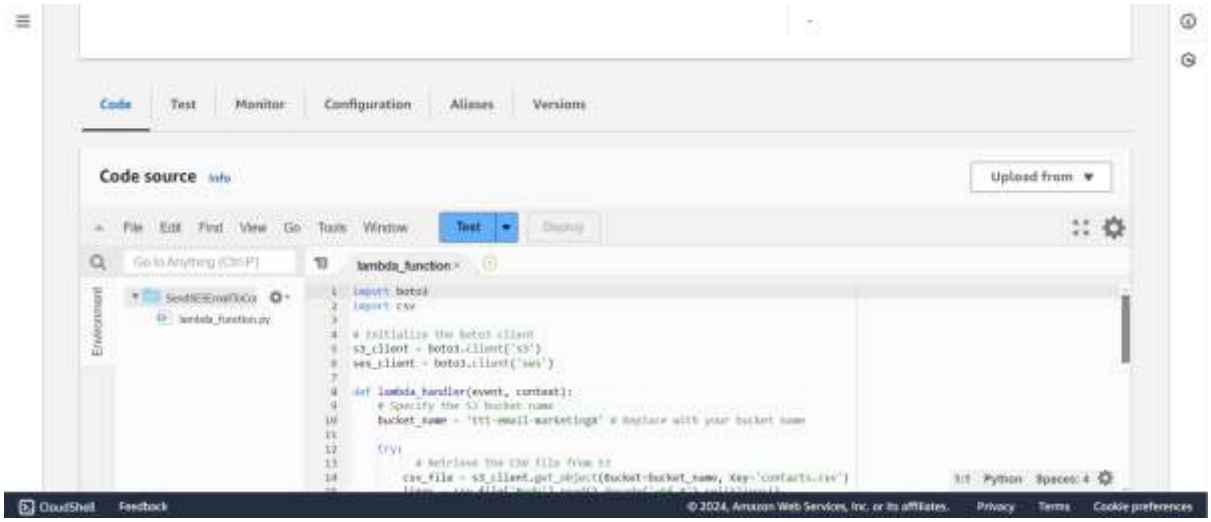
- And now click on Create Inline Policy



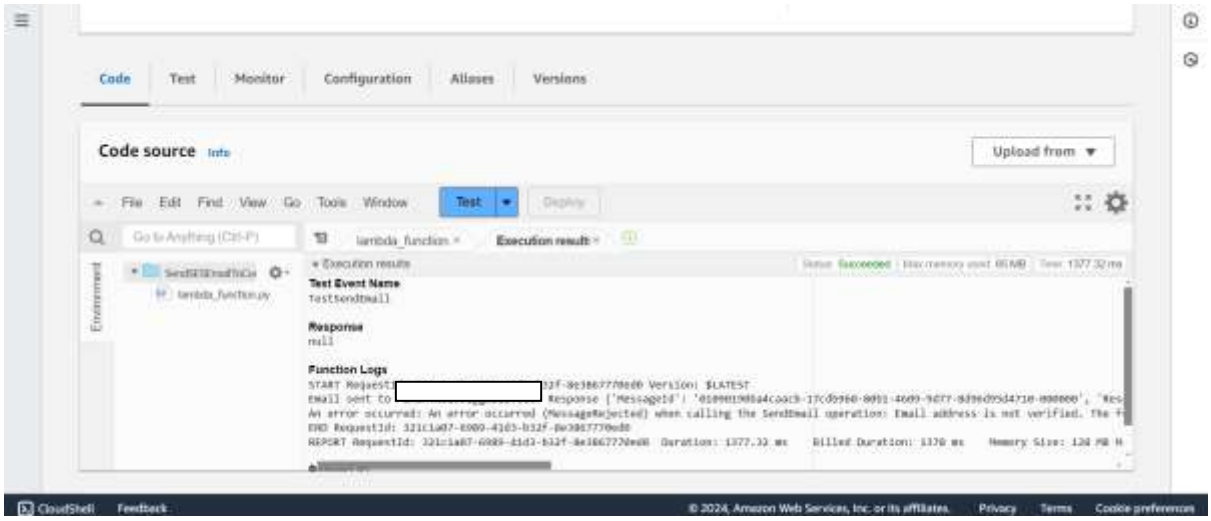
- Click that LamdaS3SESPolicy and Click on Add Permission



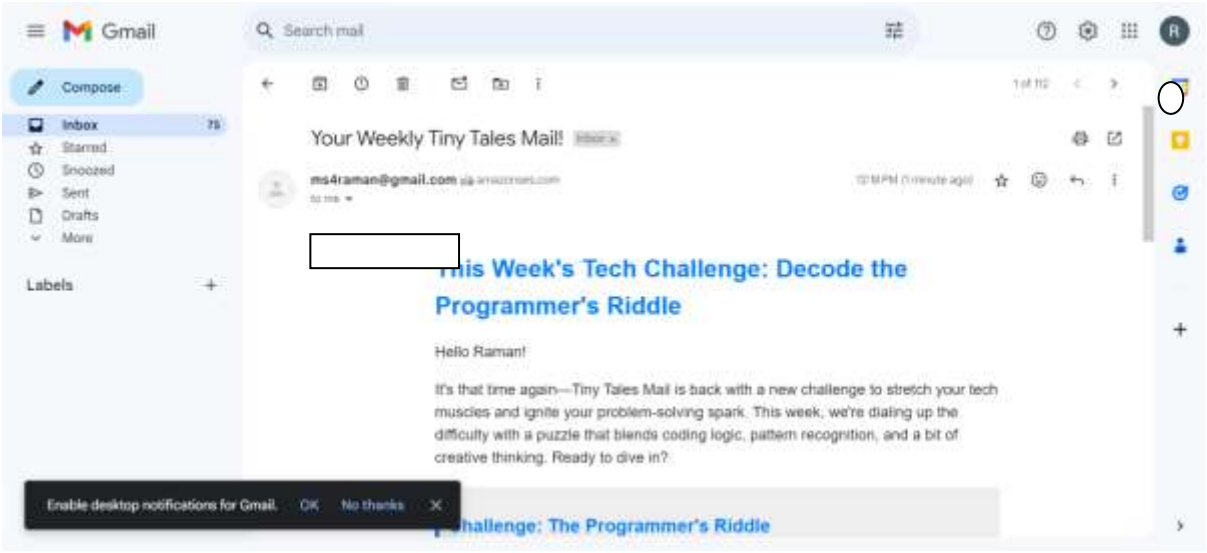
- After that again go the The Test and try once again



- Now you get a message like its success or you won't get the message called Access Denied



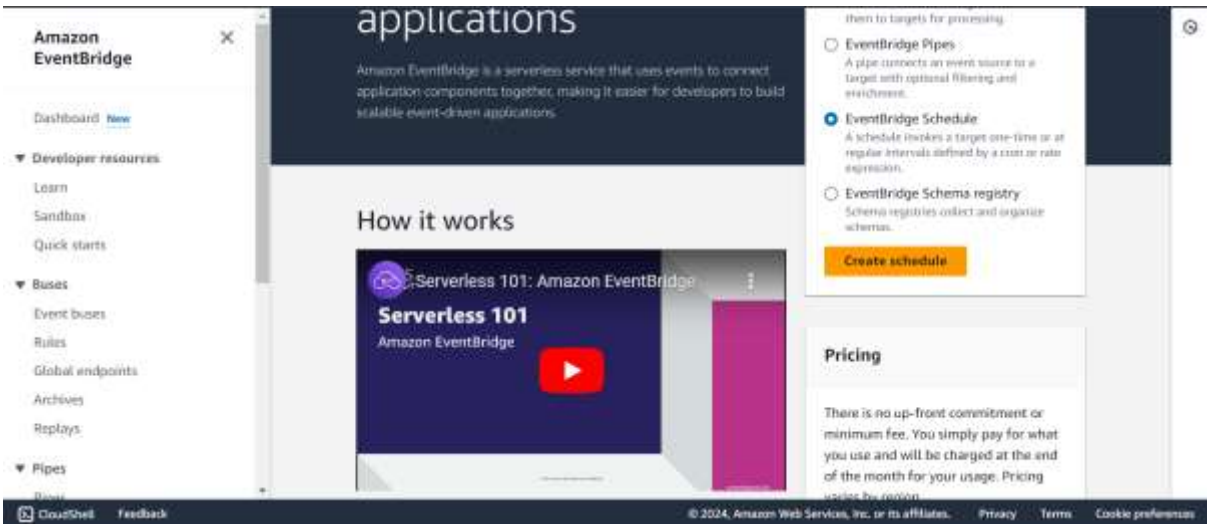
- **Now, check your email to see if you received the email or not**.



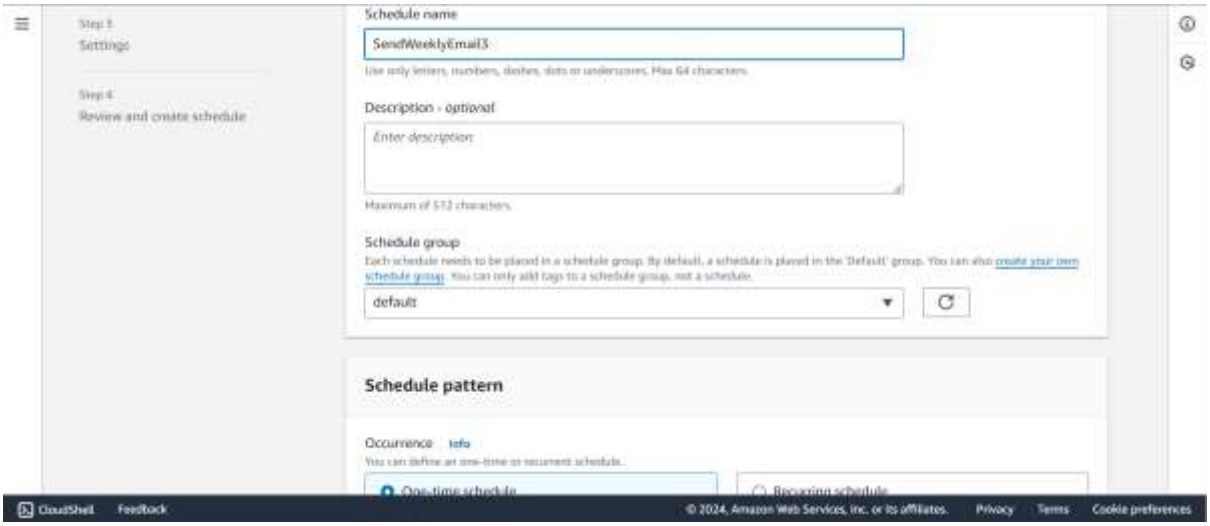
This will be the Email you will be Getting.

Step 4: Create Amazon EventBridge

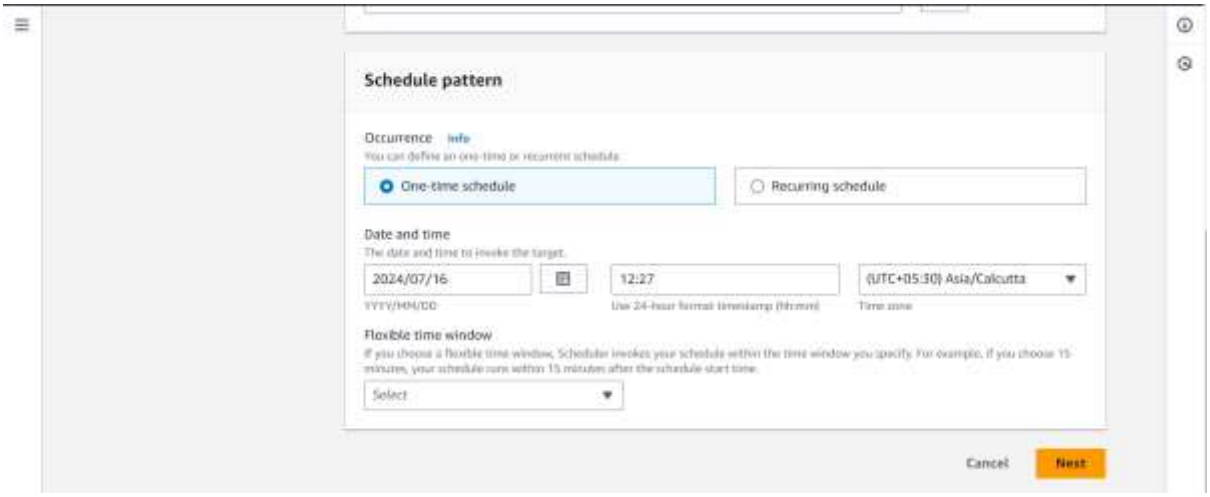
- Navigate to Amazon EventBridge in the AWS Console.
- Click the EventBridge Schedule and Click the Create Schedule button



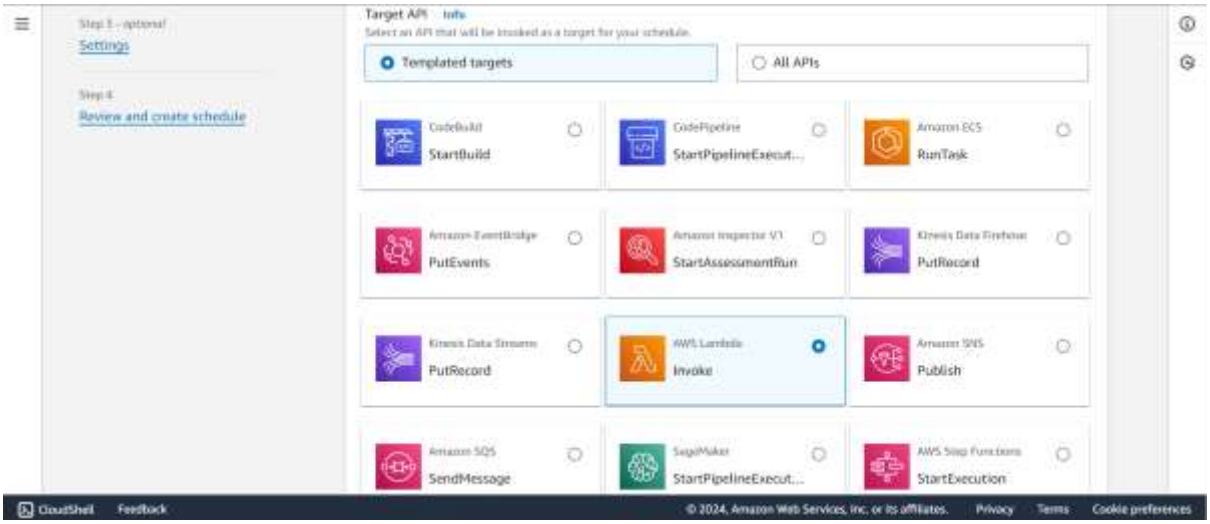
- Now we need to give a Schedule name



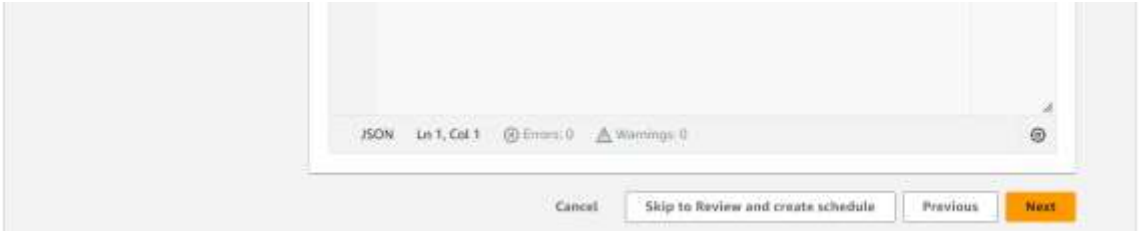
- And next is the Schedule pattern, so here you can have once time schedule and also Recurring Schedule also.
- And specify the Year, Date and Time also the Time Zone
- Then Click on Next



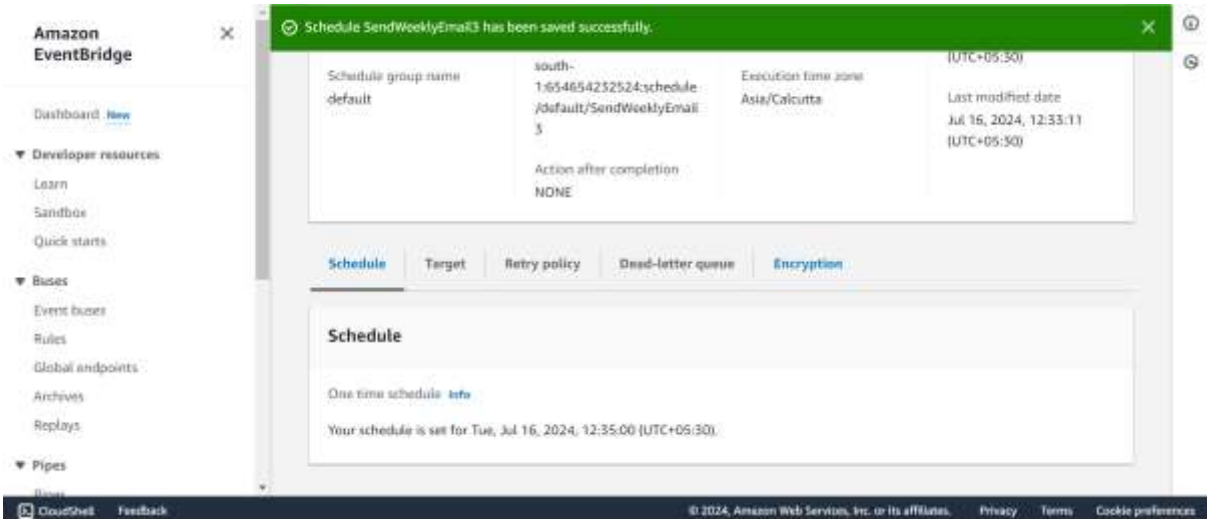
- After that we need to specify which Target Api want to choose , so here am choosing the AWS Lambda.



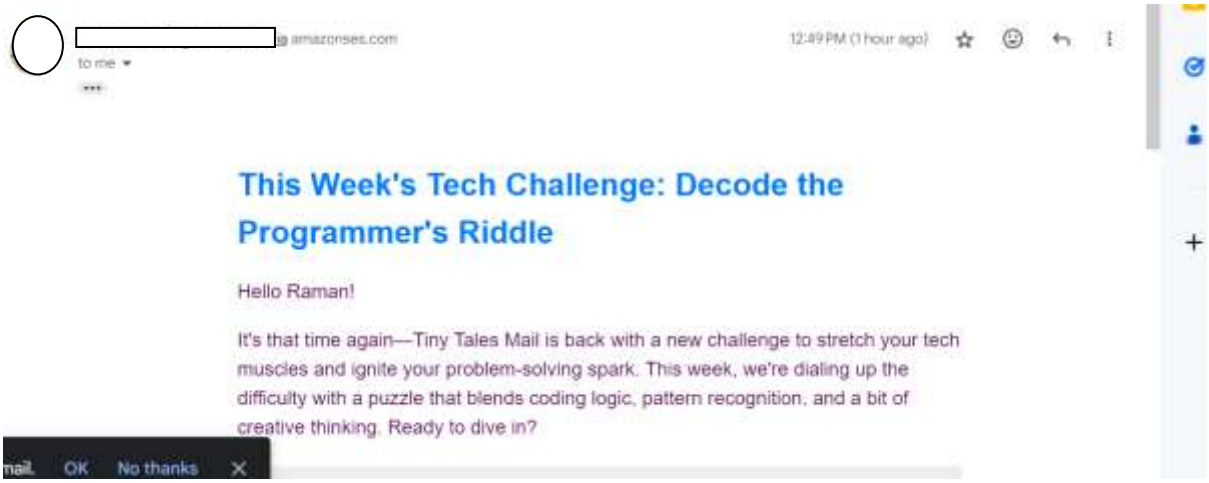
- Make Default in Settings and then atleast click Next and Create



- So Sucessfully I have created the EventBridge and wait for the Result in Email



- **Tadddaaaa! Horrayyyyy we go the OutPut ……**



Here timing might change here because this eventbridge step I tried two times and the second time I couldn’t take snap